Cardiac Arrest: Adult Asystole / Pulseless Electrical Activity

History

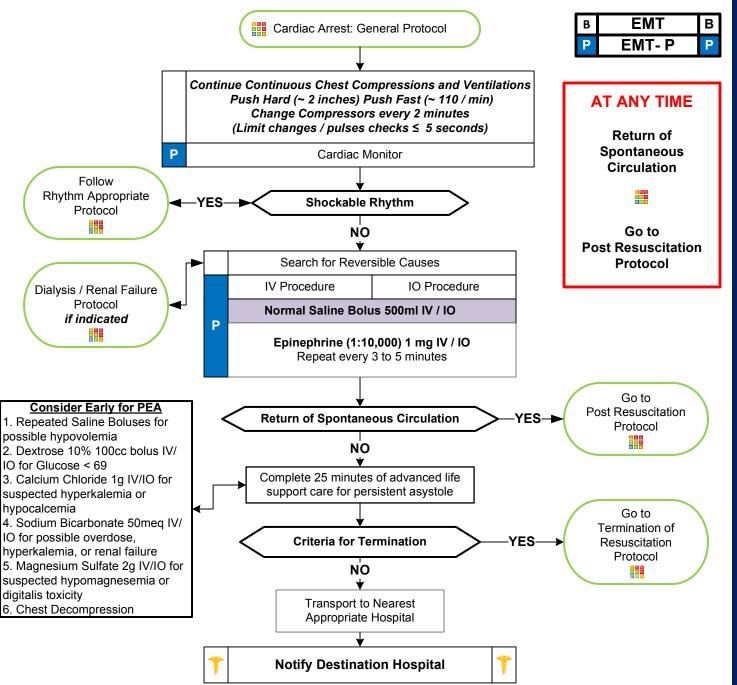
- Past medical history
- Medications
- Events leading to arrest
- End stage renal disease
- Estimated downtime
- Suspected hypothermia
- Suspected overdose
 - Tricvclic
 - Digitalis
 - Beta blockers
 - Calcium channel blockers
- DNR

Signs and Symptoms

- Pulseless
- Apneic
- No electrical activity on ECG
- No heart tones on auscultation

Differential

- Hypovolemia (Trauma, AAA, other)
- Hypoxia
- Hydrogen Ion (Acidosis)
- Hypothermia
- Hypo/Hyperkalemia
- Hypoglycemia
- Tension pneumothorax
- Tamponade, Cardiac
- Toxins (Tricyclic, Digitalis, Beta blockers, Calcium channel blockers)
- Thrombosis, Pulmonary embolus
- Thrombosis, Myocardial infarction



Adult Medical Protocol

Cardiac Arrest: Adult Asystole / Pulseless Electrical Activity

Reversible Causes

- Hypovolemia
- Hypoxia
- Hydrogen ion (acidosis)
- Hypothermia
- Hypo / Hyperkalemia
- Hypoglycemia
- Tension pneumothorax
- Tamponade; cardiac
- Toxins
- Thrombosis; pulmonary (PE)
- Thrombosis; coronary (MI)

Pearls

- SURVIVAL FROM PEA OR ASYSTOLE is based on identifying and correcting the CAUSE: consider a broad differential diagnosis, with early and aggressive treatment of possible causes.
- Effective CPR and prompt defibrillation are the keys to successful resuscitation; therefore, primary resuscitative efforts should be directed at high quality and continuous compressions with limited interruptions and early defibrillation when indicated.
- DO NOT HYPERVENTILATE! Ventilations are accomplished utilizing an adult BVM with just enough compression to achieve chest rise. Ventilate at 6 breaths per minute (once every 10 seconds) with continuous, uninterrupted compressions.
- If functioning appropriately, the preference is to leave the i-gel in place to limit interruptions in chest compressions. If intubation is considered, do not interrupt chest compressions to place the endotracheal tube. Frequently reassess airway placement and EtCO2, especially after every move, and at transfer of care.
- Sodium Bicarbonate, while no longer recommended as a standard cardiac arrest medication, may be consider in the dialysis / renal patient, known hyperkalemia or suspected overdose at 50 mEq IV / IO.
- Discussion with Medical Control can be a valuable tool in developing a differential diagnosis and identifying possible treatment options.
- Potential protocols used during resuscitation include Hyperglycemia / Hypoglycemia, Poisoning: Overdose / Toxic Ingestion, and Dialysis / Renal Failure.
- Patients in persistent PEA who are transported must be routed to a STEMI Receiving Center!